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RICHMOND-SAN RAFAEL BRIDGE
SEISMIC RETROFIT PROJECT
CONTRACTOR'S INFORMATION SESSION

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TRANSCRIPT OF PROCEEDINGS
OAKLAND, CALIFORNIA
JULY 12, 1999

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TRANSCRIPT OF PROCEEDINGS, taken at Caltrans District 4 Auditorium, 111 Grand Avenue, Oakland, California, commencing at 1:10 p.m., Monday, July 12, 1999, before Sharon Lancaster, CSR No. 5468.

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MONDAY, JULY 12, 1999 OAKLAND, CALIFORNIA
1:10 P.M.
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MR. TERPSTRA: Please take your seats.
Good afternoon. My name is Ken Terpstra, project manager on this project.
And what we do now is take up some time this afternoon to answer some of your questions. I have a number of yellow cards. And if you have more, you can simply just walk them up to me, and I'll take them and read them, and the court reporter will type them. And then I'll turn to the appropriate person or panel member up here.
Maybe we should introduce our panel. Do you all want to introduce yourselves? That might be a good idea. Let's do that.
MR. MULLIGAN: Thanks, Ken. I'm Denis Mulligan. I work for Caltrans. I'm the manager for the Toll Bridge Program.
MR. DAHLGREN: Thomas Dahlgren, with Ben C. Gerwick.
MR. EBERLE: John Eberle, construction manager for Caltrans.
MR. VINCENT: John Vincent, with Ben C. Gerwick.

MS. KOUYATE: Tess Kouyate, with CH2M-HIll.

MR. PARIS: I'm John Paris, with CH2M-Hill.

MR. SUN: Shawn Sun. I'm the structural contract manager working for Caltrans.

MR. LI: Odeon Li from Sverdrup.

MR. CORVEN: John Corven from DMJM.

MR. RICHARDSON: I'm Ron Richardson. I'm the structural consultant project manager for the project.

MR. TERPSTRA: And as I said, I'm Ken Terpstra. I get to hand out the questions.

Let me start with a few, as we call it, "big picture questions" that I'm going to ask you to answer, Denis. And I know it's probably on everyone's mind.

How much is the engineers' estimate for this bid? Hold on.

If the low bidder is higher than the engineers' estimate, will the job be awarded?

And thirdly: Is there a limit to the overrun of the engineers' estimate at which the job will not be awarded?

MR. MULLIGAN: Thanks, Ken.

Caltrans is in the process of revising the engineers' estimate as we speak. The estimate is more than 300 million dollars and less than 400 million dollars.

When we advertise the project in the middle of August, we will post the engineers' estimate at that time based on the revision which is currently underway in the unit prices.

We anticipate that when we open bids, we will award this contract. It is a public safety project, and so we will have sufficient funds authorized to award the contract.

We recognize that when we advertised a year ago, the engineers' estimates were low. We have gone through cost savings exercises and we have gone out and obtained the necessary funding to ensure that this work can proceed. So I wish to allay any concerns that you may have.

MR. TERPSTRA: Next question.

With the advertised/bid dates of 8/16 and 12 whatever, how will this interface with the schedules for the Carquinez Bridge and the trestle expansion on the San Mateo Bridge?

MR. MULLIGAN: As the projects are currently scheduled, there is approximately one

month between the bid openings, but the schedules are subject to change. As it's currently scheduled, the San Mateo-Hayward trestle widening, approximately five miles of precast concrete bridge, will be advertised at the end of this month, with the bid opening in early October.

The Carquinez Bridge is scheduled to advertise in August. We are going through some design issues that have arisen with respect to the south tower. As it's currently envisioned, that bid opening will be in early November.

The Richmond-San Rafael will then be in early December, as it's currently set up. There is about one month between each bid opening for these large projects.

MR. TERPSTRA: Will there be minority participation goals?

MR. MULLIGAN: This project will comply with all applicable laws and regulations. Under current law, there will be a three percent disabled veteran goal on this project. There are no federal funds on this project, so the federal goals will not apply. Barring any change in law, we only anticipate a three percent disabled veteran goal at this point in time.

MR. TERPSTRA: Question for Mr. Eberle. What is the construction period for this contract?
MR. EBERLE: This is going to be a calendar day project, not a working day project, and it will be 1,170 calendar days.
MR. TERPSTRA: And John, another one for you.
Will temporary bridges be allowed if not enough time during the night closures, I take it, for removal and replacement of the low level trestle?
MR. EBERLE: If "temporary bridge" is referred to as a temporary structure that the traffic will then be allowed to be placed upon in lieu of putting the precast member all in one night, the specs right now do not preclude that; so, yes, that will be allowed.
If "temporary bridge" refers to a temporary trestle, on the concrete trestle portion, a temporary trestle is only allowed between the two existing structures. Temporary trestle on the exterior of the concrete trestle is not allowed.
MR. TERPSTRA: And here is a question for you, Odeon.
What percent of steel will have to be

custom measured and fabricated piece by piece? And maybe you just want to talk a little bit about that, what you envision.

MR. LI: All of the steel on the existing structure has to be custom measured. On the plans the dimensions are from the shop plans, so the contractor has to work out the dimensions.

MR. TERPSTRA: Then there is a question: Who is the contact person or what is the department at Chevron?

Caltrans is currently negotiating with Chevron, Inc. to obtain the Temporary Construction Easement for the barge load out area at the east end of the bridge. Project plans will delineate the available area. Should the contractors be looking for additional access or staging areas, they may contact Chevron, Inc., at the following address: Chevron Products Company
P.O. Box 1272
Richmond, CA 94802-0627
Attention: Scott Moore.

Now, I have three questions for John Vincent. And John also has a list of questions, since there were a lot of questions about the micro-pile. So I'm going to ask you these questions, and

then you can read your own.
MR. VINCENT: Okay.
MR. TERPSTRA: What is the design criteria for the temporary structures?
I think what we're talking about is the temporary structures when you take out the members, is what I'm thinking. We talked about this earlier.
MR. VINCENT: As far as the steel towers goes, the requirements are on the plans. The plans show the dead weights coming from the superstructure and the lateral loads that the existing towers must resist. They were taken from the original as-built plans. Our intent is that the contractor maintain the existing load-carrying capacity of the structure.
All the loads you need are on the plans, except you will have to add construction loads, and wind loads directly on your shoring systems. Most of the information is on the plans.
MR. TERPSTRA: And then, John: Will third party inspection be required for all welding on and off site?
MR. VINCENT: Well, obviously, welding is very important to us. Quality control-quality

assurance requirements are spelled out in a lot of detail in the special provisions. The contractor will be required to perform the quality control, and the engineer will have the ability to go in and do and assurance.

MR. TERPSTRA: I have one more before you turn to your own, either for you or John Corven.

Are there corrosion inhibitors required in precast segments? If not, why not, for longer life? Both precast segments and tremie concrete.

MR. VINCENT: Well, I can comment the precast pile caps and the concrete jackets. We took great care in developing the concrete mixes for those elements. They have special proportions of silica fume and other items to ensure that we don't get corrosion of the steel. You probably have noticed that we're not using epoxy coated reinforced steel in the jackets or the pile caps.

In the case of tremie concrete, say, for locking the two pile caps together, there is an anti-washout mixture to ensure a good quality concrete.

And I can add that for the concrete jackets in the splash zone, we will also require a polyuria coating.

MR. TERPSTRA: That's all the questions I have up here. I know, John, you have a handful of them about various subjects. I think Thomas, you have one, too. So go ahead and take it, John.

MR. VINCENT: Let me just read these. There are several that deal with micropiling.

The first question: Is the micro-pile outer casing a permanent structural element or may it be removed?

The outer casing which is placed below the existing pile cap, into which the pipe reinforcement is placed, is a permanent element; it shall remain in place. That's the way it's been designed, so it's intended to be there.

Second question is: What skin friction, psi, pull out force may be assigned to the micropile structural element with the added shear rings?

Typically, the skin friction that was used for the pipe reinforcement in the rock was 51 psi. The additional friction that can be assigned to the shear rings in the rock socket, and also the shear rings and grooving in the pile cap itself, were taken from API RP (2)(a).

If Gerwick performed the micropile

design specification with no alternatives, why is the liability for the design given to the contractor by having the contractor design the rock socket length?

There are performance test piles required for this project. There is five locations where the contractor will have to perform performance pile tests.

These are non-production micropiles that provide an opportunity for you to demonstrate your construction methods and verify the rock socket lengths assumed in your bid. If it's determined that the rock socket lengths can be shortened or they have to be lengthened, that adjustment will take place before you start the production piles. There is a mechanism in the special provisions for doing that.

Why must the micropiles be grouted in two stages? Is the liability for performance rocket socket length (see No. 3 above) the contractor's?

Again, you're going to be doing performance pile testing to verify your construction methods and also to confirm that your system is capable of developing the loads that are shown on the plans.

Again, the performance test micropiles will be used to make any adjustments that are necessary prior to proceeding with the production piles.

As far as the two-stage grouting goes, as Thomas mentioned in his presentation, the first micropile that's installed at a pier will be tested, and a second will be randomly chosen for testing. So we only want the first stage grout to go in, so that the R.E. can randomly pick one additional pile for testing. Obviously, we can't test a pile if you've already put in the second stage grout. That is the reason for two-stage grouting.

Next question: Must the 14-inch diameter core drilled through the belled pier for the micropile installation be grooved, or can an alternative method be used?

The plans require the grooving. Unlike the rock sockets, which will be tested, we do not have the ability to actually test the connection between the micropile and the belled pier. So we will require the grooving.

This question makes reference to sheet 4 of 31, titled "Two bell pier - micropile

retrofit No. 1" sheet.

The note on the drawing (top right-hand corner) could be read to suggest that if "H" piles are encountered during drilling for the 14-inch core hole, that would be the contractor's problem. Is this the intention?

The intent of the note is to bring to your attention that there will be reinforcements that you'll be coring through. Coring through reinforcements in the concrete bells is expected and will be tolerated.

If there should be an errant "H" pile and your coring equipment encounters it, that will be considered a changed condition. If it's a battered pile, one of the solutions will be to continue coring through the "H" pile. If it's a vertical "H" pile -- which in most cases it won't -- but if were, that would be more problematic and it may require relocation of the micropile.

This question regards micropiles and has to do with the definition of "cleaning."

There is a requirement for cleaning the bells. Primarily, it is to remove organic material before the steel casings are put on and grouted.

We do realize that the specifications lack a good definition of how clean is "clean." Our intent was that cleaning be performed with either abrasive equipment or high pressure water. The intent, again, is to remove the majority of the organic growth.

We realized that some marine growth, calcareous, shelly material, can get to the point where it adheres so tightly to the concrete that it takes, an excessive amount of effort to remove it. It is not our intent that this material be removed. I think you will find in the near future that there will be a clarification to help you know what we will define as "clean."

There is a question about the cathodic protection system. It says: Is the cathodic protection system designed to protect the new steel casing? If so, where are the bonding strap welds?

The cathodic protection system used uses an aluminum anode. The strap that is used to attach the anode to the steel casing is cast with the anode. The casing has welded studs that will be protected from flame sprayed plastic used to attach the anode. So your electrical connection is made

between the strapping that's cast with the anode and the steel studs that are welded to the casing.

The fourth question says: We need current info on the bridge.

MR. MULLIGAN: We have a link from the toll program Web site to a NOAA web site, Coast Guard Web site and other Web sites. The Corps of Engineers has a model of Sausalito. There is also tidal information published through a variety of sources that you can purchase.

It is an area where we have scour protection in place so there are high volume, high velocity currents. And there are rather extreme fluctuations in tides. And that's all information that's available in the public realm.

MR. SUN: I want to add one thing on the micropile issue. Now, what you have seen regarding the construction sequencing for micropile is for the truss foundations. At the east approach structure, there are 282 micropiles.

The outer casing is a half-inch thick temporary casing, which can be removed after grout placement in rock socket before grout hardening.

MR. TERPSTRA: It turns out I have a few more here; you know, some that were written on

the back.
John Paris, this is for you.
Will Caltrans obtain permits for dredge materials? (A) ordinary for water disposal; (B) rock for upland; (c) contaminated for upland?
Would you talk about dredging just in general?
MR. PARIS: Sure. The permits have already been obtained from the various agencies for the dredging and aquatic disposal operation we'll be required to perform. Upland disposal will be required for a portion of the dredged material, and the contractor must obtain the authorizations for any upland disposal.
MR. TERPSTRA: Do the dredging quantities given include an allowance for cleanup dredging?
MR. PARIS: The dredging quantities that were provided to the permitting agencies are a maximum, and the contractor will be required to conduct all of those activities within that maximum allowable quantity.
MR. TERPSTRA: And then, Shawn, would you say a few things about the rivets being removed and replaced with bolts.
MR. SUN: Some of the existing rivets

will be removed and replaced with high strength bolts. As I said in my presentation truss spans, there are over a quarter million rivets that will be removed and replaced with high strength bolts.

There are also rivets that will be removed in the approach structures and in the steel towers.

MR. TERPSTRA: Then Odeon: Does the bridge have lead paint? And how will its removal be handled and paid for?

MR. LI: Yes, the bridge has lead paint. Right now it's covered and paid for in two items. One is spot blast clean and undercoat. Another is work area monitoring.

MR. TERPSTRA: And then John Eberle: Can Caltrans obtain staging areas within Chevron rather than the contractor, as was stated?

MR. EBERLE: On the east side, where Chevron is located, we are currently working on obtaining a temporary construction easement. If we do secure that, we will clearly spell that out on the Web or in future updates.

MR. TERPSTRA: Thanks. That's all the questions. Does anyone else have a question they want to ask from the floor or turn me in a card?

Otherwise -- I'll pause for a moment, see if there are any.

I think with that, Denis, I'm just going to ask you to come up and maybe say a couple closing remarks.

MR. MULLIGAN: Couple items. One, thanks for coming today. When you received a package when you came in, it was pointed out it is missing a couple of sheets on the steel erection. Those sheets have been produced, they are available in back. You can pick them up on your way out. We apologize. They were left out of the original printing.

We look forward to all of you participating in this project. Once again, it will be advertised on August 16th. Once we advertise the project, we have a mechanism for you to communicate and ask questions via the Web. And our duty senior, who was not introduced earlier, standing at the back, Sarah Picker, will be the point of contact. She is currently the person that handles the bidding inquiries on the other toll projects and arranges all the tours on the west span of the Bay Bridge.

So once again, thanks again for coming today. We hope this was informative and

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worth your while. We look forward to seeing you in the future. Thank you.

(Ending time: 1:40 p.m.)